# CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

**NABL** - Accredited Laboratory as per ISO / IEC-17025 :2005

T-2377

Job No.: CTCE/BBMP/KRIDL/W.No.13/CSR-04/311f/Cube/2017-18

30.05.2017

## TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

| | | |
|---|---|---|
| * Customer | : | **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore. |
| * Agency | : | **Technical Manager (West),** KRIDL, Bangalore. |
| * Name of the work | : | Improvements of cement concrete roads and RCC drains at 2nd cross opp. St. Marys school 5th cross Kalyana Nagara 15th A cross and 17th A and C Cross adjusted to dasarahalli main road and 4th cross 6th cross 3rd main road and opp. to CSI holy Church road in Ward No.13, Shettyhalli Sub Division, BBMP, Bangalore. |
| * Reference | : | BBMP/EE/DD/WO/115/2016-17 Dated: 27.01.2017 |
| * Sample ID | : | Drain Covering Slab Concrete |
| Technical Reference | : | IS: 516-1959 (RA-2013) |
| Size of cubes | : | 150mmx150mmx150mm |
| Cross Sectional Area | : | 22500 $mm^2$ |
| * Grade of Concrete | : | $M_{20}$ |
| Compressive Strength as on | : | $28^{th}$ day |
| Sample Received on | : | 30.05.2017 |

| Sl.No. | Date of casting | Date of testing | Weight of cube (Kg) | Failure load (KN) | Compressive strength ($N/mm^2$) |
|---|---|---|---|---|---|
| 1 | 02.05.2017 | 30.05.2017 | 8.199 | 479.6 | 21.32 |
| 2 | 02.05.2017 | 30.05.2017 | 8.267 | 508.6 | 22.60 |
| 3 | 02.05.2017 | 30.05.2017 | 8.338 | 529.8 | 23.55 |

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VIDYARANI P.K.
Technical Manager

ನಂ -13
ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಶೆಟ್ಟಿಹಳ್ಳಿ ಉಪವಿಭಾಗ, ದಾಸರಹಳ್ಳಿ ವಲಯ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
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| Technical Reference | : | IS: 516-1959 (RA-2013) |
| Size of cubes | : | 150mmx150mmx150mm |
| Cross Sectional Area | : | 22500 $mm^2$ |
| * Grade of Concrete | : | $M_{20}$ |
| Compressive Strength as on | : | $28^{th}$ day |
| Sample Received on | : | 30.05.2017 |

| Sl.No. | Date of casting | Date of testing | Weight of cube (Kg) | Failure load (KN) | Compressive strength ($N/mm^2$) |
|---|---|---|---|---|---|
| 1 | 02.05.2017 | 30.05.2017 | 8.189 | 505.5 | 22.47 |
| 2 | 02.05.2017 | 30.05.2017 | 8.229 | 513.2 | 22.81 |
| 3 | 02.05.2017 | 30.05.2017 | 8.305 | 526.8 | 23.41 |

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| * Reference | : | BBMP/EE/DD/WO/115/2016-17 Dated: 27.01.2017 |
| * Sample ID | : | Drain Covering Slab Concrete |
| Technical Reference | : | IS: 516-1959 (RA-2013) |
| Size of cubes | : | 150mmx150mmx150mm |
| Cross Sectional Area | : | 22500 $mm^2$ |
| * Grade of Concrete | : | $M_{20}$ |
| Compressive Strength as on | : | $28^{th}$ day |
| Sample Received on | : | 30.05.2017 |

| Sl.No. | Date of casting | Date of testing | Weight of cube (Kg) | Failure load (KN) | Compressive strength ($N/mm^2$) |
|---|---|---|---|---|---|
| 1 | 02.05.2017 | 30.05.2017 | 8.099 | 482.3 | 21.44 |
| 2 | 02.05.2017 | 30.05.2017 | 8.196 | 493.6 | 21.94 |
| 3 | 02.05.2017 | 30.05.2017 | 8.289 | 508.2 | 22.59 |

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**NABL** - Accredited Laboratory as per ISO / IEC-17025 :2005

T-2377

Job No.: CTCE/BBMP/KRIDL/W.No.13/CSR-04/311f/Cube/2017-18 03.06.2017

## TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

| | | |
|---|---|---|
| * Customer | : | **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore. |
| * Agency | : | **Technical Manager (West),** KRIDL, Bangalore. |
| * Name of the work | : | Improvements of cement concrete roads and RCC drains at 2nd cross opp. St. Marys school 5th cross Kalyana Nagara 15th A cross and 17th A and C Cross adjusted to dasarahalli main road and 4th cross 6th cross 3rd main road and opp. to CSI holy Church road in Ward No.13, Shettyhalli Sub Division, BBMP, Bangalore. |
| * Reference | : | BBMP/EE/DD/WO/115/2016-17 Dated: 27.01.2017 |
| * Sample ID | : | Drain Covering Slab Concrete |
| Technical Reference | : | IS: 516-1959 (RA-2013) |
| Size of cubes | : | 150mmx150mmx150mm |
| Cross Sectional Area | : | 22500 $mm^2$ |
| * Grade of Concrete | : | $M_{20}$ |
| Compressive Strength as on | : | $28^{th}$ day |
| Sample Received on | : | 03.06.2017 |

| Sl.No. | Date of casting | Date of testing | Weight of cube (Kg) | Failure load (KN) | Compressive strength ($N/mm^2$) |
|---|---|---|---|---|---|
| 1 | 06.05.2017 | 03.06.2017 | 8.225 | 493.5 | 21.93 |
| 2 | 06.05.2017 | 03.06.2017 | 8.315 | 508.2 | 22.59 |
| 3 | 06.05.2017 | 03.06.2017 | 8.418 | 516.8 | 22.97 |

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Job No.: CTCE/BBMP/KRIDL/W.No.13/CSR-04/311f/Cube/2017-18 03.06.2017

## TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

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| * Customer | : | **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore. |
| * Agency | : | **Technical Manager (West),** KRIDL, Bangalore. |
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| * Sample ID | : | Drain Covering Slab Concrete |
| Technical Reference | : | IS: 516-1959 (RA-2013) |
| Size of cubes | : | 150mmx150mmx150mm |
| Cross Sectional Area | : | 22500 $mm^2$ |
| * Grade of Concrete | : | $M_{20}$ |
| Compressive Strength as on | : | $28^{th}$ day |
| Sample Received on | : | 03.06.2017 |

| Sl.No. | Date of casting | Date of testing | Weight of cube (Kg) | Failure load (KN) | Compressive strength ($N/mm^2$) |
|---|---|---|---|---|---|
| 1 | 06.05.2017 | 03.06.2017 | 8.152 | 482.3 | 21.44 |
| 2 | 06.05.2017 | 03.06.2017 | 8.218 | 493.1 | 21.92 |
| 3 | 06.05.2017 | 03.06.2017 | 8.329 | 508.6 | 22.60 |

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Job No.: CTCE/BBMP/KRIDL/W.No.13/CSR-04/311f/Cube/2017-18 03.06.2017

## TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

| | | |
|---|---|---|
| * Customer | : | **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore. |
| * Agency | : | **Technical Manager (West),** KRIDL, Bangalore. |
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| Cross Sectional Area | : | 22500 $mm^2$ |
| * Grade of Concrete | : | $M_{20}$ |
| Compressive Strength as on | : | $28^{th}$ day |
| Sample Received on | : | 03.06.2017 |

| Sl.No. | Date of casting | Date of testing | Weight of cube (Kg) | Failure load (KN) | Compressive strength ($N/mm^2$) |
|---|---|---|---|---|---|
| 1 | 06.05.2017 | 03.06.2017 | 8.128 | 480.2 | 21.34 |
| 2 | 06.05.2017 | 03.06.2017 | 8.269 | 490.6 | 21.80 |
| 3 | 06.05.2017 | 03.06.2017 | 8.389 | 512.6 | 22.78 |

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T-2377


Job No.: CTCE/BBMP/KRIDL/W.No.13/CSR-04/311f/Pre Slab/2017-18 21.04.2017

## TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CORE

| | | |
|---|---|---|
| * Customer | : | **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore. |
| * Agency | : | **Technical Manager (West),** KRIDL, Bangalore. |
| * Name of work | : | Improvements of cement concrete roads and RCC drains at 2nd cross opp. St. Marys school 5th cross Kalyana Nagara 15th A cross and 17th A and C Cross adjusted to dasarahalli main road and 4th cross 6th cross 3rd main road and opp. to CSI holy Church road in Ward No.13, Shettyhalli Sub Division, BBMP, Bangalore. |
| * Reference | : | BBMP/EE/DD/WO/115/2016-17 Dated: 27.01.2017 |
| * Sample ID | : | Precast slab |
| * Grade of Concrete | : | $M_{20}$ |
| Techinical Reference | : | IS:516-1959 (RA- 2013), SP-24:1983. |
| Sample Received on | : | 16.04.2017 |
| Date of Testing | : | 21.04.2017 |

| Sl. No | Dia of Core D (mm) | Height of Core H (mm) | Core Wt (Kg) | Density of Core (kg / $m^3$) | H / D | Correction factor (Based on H/D) | Failure Load (kN) | Core Strength ( $N/mm^2$) | Correction Factor for the Dia. (Strength of the Core x 1.08) | Corrected Cylinder Compressive Strength ($N/mm^2$) | Equivalent Cube Compressive Strength ($N/mm^2$) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 50.00 | 80.00 | 0.399 | 2540.11 | 1.60 | 0.957 | 32.25 | 16.42 | 17.74 | 18.54 | 23.17 |
| 2 | 50.00 | 81.00 | 0.405 | 2546.48 | 1.62 | 0.959 | 33.90 | 17.27 | 18.65 | 17.88 | 22.35 |
| 3 | 50.00 | 84.00 | 0.418 | 2534.35 | 1.68 | 0.965 | 34.55 | 17.60 | 19.00 | 18.35 | 22.93 |

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